AI Banking Assistant: BCU

LUNAVI

A New Era in Online Banking

Approaching $6 billion in assets, BCU serves over 350,000 members across the U.S. and Puerto Rico. Dmitriy Melnik, Senior Director of Software Development and Quality Assurance at BCU, wanted to see how the Credit Union could leverage AI to stay competitive and better serve their members. When choosing a partner to innovate with AI, Lunavi was a no-brainer.

"We really wanted to explore AI and the capabilities of the conversational aspect, without having to do much AI training," said Melnik. "I previously worked with multiple Lunavi teams for online banking and converting legacy BCU applications to microservices. It was a great experience, so we knew Lunavi would be a good partner for the AI PoC."

Lunavi's team began with initial research into the project scope and expected outcomes. As a Proof of Concept, the budget was small and the timeline was short, so Lunavi's team set to work creating a solution leveraging Azure OpenAI. This AI Proof of Concept was set to be a virtual banking assistant – capable of interfacing with multiple sets of data to answer conversational, multi-layered requests from clients. "We were hoping to prove that we could eliminate a lot of actual phone calls or even prevent them by using AI," said Melnik. "We wanted a conversational generative AI that could mimic customer service scripts and improve the member experience."

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The Next Evolution in Enterprise AI

In just two weeks, Lunavi had a working Virtual Banking Assistant (VBA) prototype. Leveraging multiple custom GPTs, this VBA would allow BCU clients to log in, ask questions in natural language, and receive a response with accurate data in a friendly approachable way. Presented as an easy-to-use chat-interface, the VBA would resolve all requests presented to it at once, in a single conversational response.

A member could request their food expenses, assistance with bill payments, and for a specific account balance all at once without issue. Compared to navigating phone menus and wait times to speak with a representative, a Virtual Banking Assistant doesn't just save time for the Credit Union but saves time and frustration for members as well.

The VBA leveraged the following to ensure that the customer facing experience met the requirements while maintaining proper access control and security:

- **Identity and Access Management**
The VBA leveraged the same authentication and authorization as defined by the current APIs to safeguard sensitive AI operations

- **Azure Infrastructure**
This leveraged Azure's native AI capabilities and allowed for robust analytics and data platform tools.
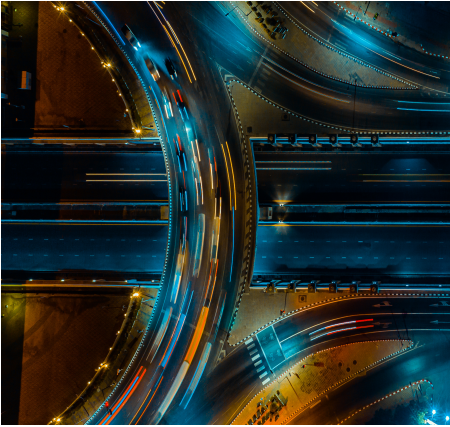
- **API/Plugin Development**
We created plugins that would allow seamless integration with both internal and external systems

- **Content Filtering**
We implemented a content filtering system designed to detect and prevent the input or output of inappropriate and even harmful content.
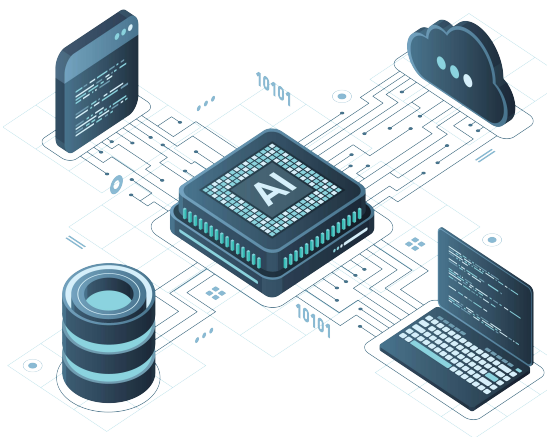
These measures ensured that the VBA could not hallucinate and would give accurate information for the proper user or request. Even after rounds of rigorous testing, and multi-layered questions, this layered structure kept the VBA focused on its specific tasks, while other specialized GPTs worked in the background to access their databases.

"Another point was to ensure the AI can only talk to the data we connected it to, which is of course members' financial information," said Melnik. "We needed to prove the AI doesn't have access to anything else and that it cannot pollute the answers or hallucinate. It seems that also worked."

What Does this Mean for the Future of Finance?

The opportunities are endless. Leveraging a partner like Lunavi in building AI virtual assistants can help in a multitude of ways: elimination of customer support overflow, quicker customer support response times, and the replacement of regular web chat bots with something that can automatically resolve customer questions and issues. AI's ability to understand intent and provide detailed accurate responses to client questions or concerns is a game-changer.

Lunavi has the expertise to build your AI efforts intelligently. "Lunavi is a well-oiled Agile machine," said Melnik. "Very clean, very efficient. It was a great experience."

If you are looking to implement an AI virtual assistant for your organization, or would like to explore how AI can transform your business, get in touch today!

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